

NOTES ON AUSTRALIAN DIPTERA. XXXVI.

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(Four Text-figures.)

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The paper now presented furnishes descriptions of two remarkable Australian Diptera regarding the family location of which there is at least an element of doubt. I have long deferred dealing with them because of my intention to present a comprehensive synoptic key to the so-called acalyptate Diptera, and these and other confusing species have been largely responsible for a protracted delay in bringing my paper to completion. I am now publishing the descriptions as a step towards the elimination of the problem of the family status of the two Australian species.

Family ASTEIDAE.

Without going into the question of the distinctness of this group from the Drosophilidae, I provisionally place herein the new genus described below.

NOTHOASTEIA, n. gen.

Generic characters.—Wing venation much as in *Liomyza* Macquart, but the outer cross-vein is lacking and the sixth vein is well developed though incomplete (Fig. 1). Head wider than thorax, flattened, the frons broad, eyes elongate (Fig. 2); antennae with the third segment broken off in type, probably short and rounded at apex; frontal bristles weak, one vertical on each side rather noticeable, the ocellars not distinguishable; eyes stiff short-haired. Thorax slender, slightly convex above, the humeri tumid, with one short bristle and some hairs; notopleurals short; scutellum short, but both it and the posterior part of the mesonotum so much damaged by the pin that exact details can not be ascertained. Legs moderately long and strong, with no distinct bristles, rather numerous haired.

Genotype, the following species.

NOTHOASTEIA PLATYCEPHALA, n. sp. Figs. 1, 2.

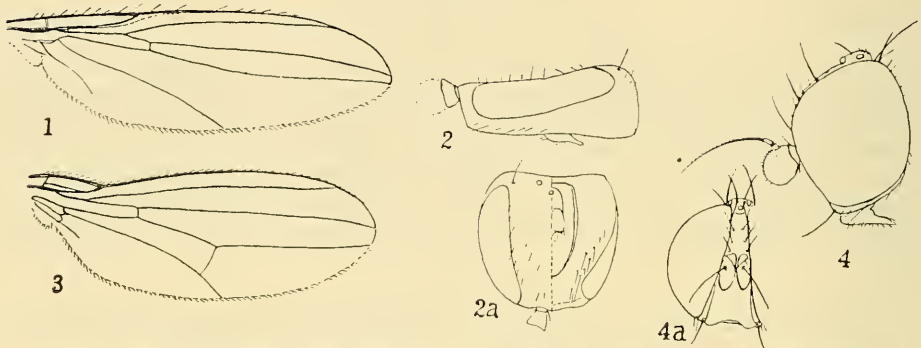
Head testaceous yellow, frons darkened above and with grey dust on the dark part, the orbits yellow, vertex brown, darkest at ocelli; hairs yellow. Thorax yellow, the mesonotum shiny black and slightly grey-dusted; scutellum apparently black. Legs entirely yellow. Wings hyaline, veins pale. Abdomen largely destroyed, but dark at base, the sex of the specimen indeterminable. Halteres cream-coloured.

Head as in Figures 2 and 2a, distinctly wider than thorax, partly abraded so that exact details of the bristling can not be given. The flattened and widened form is different from that of any genus of Asteidae known to me, the only approach to it being found in a Hawaiian genus that differs in having the second

wing-vein much shorter and in other details. Humeri quite prominent, prosternal plate small. Legs with numerous pale hairs and no bristles, all femora rather thick, the hind pair distinctly longer than their tibiae. Wings narrow, rather pointed, costa to apex of fourth vein, with some fine costal hairs (Fig. 1). Length, 2.5 mm.

Type, Brisbane.

It is possible that careful search on the inner sides of windows, and especially those of outhouses, will produce specimens of this interesting species, and so provide material for a thorough examination of features not preserved in the damaged type specimen.



Figs. 1-2a.—*Nothoasteia platycephala*. 1, wing; 2, head in profile; 2a, head from above on left, from below on right.

Figs. 3-4a.—*Waterhouseia cyclops*. 3, wing; 4, head of male in profile; 4a, head from in front, incomplete.

#### Family ANTHOMYZIDAE.

My reason for placing the new genus described below in this family is that the wing venation and presence of vibrissae appear to associate it most closely with this group. The extremely narrow frons, however, sets the genus apart, and several other characters, such as the markedly convex mesonotum, serve to distinguish it from any genus known to me. I admit that the assignment to Anthomyzidae is tentative and subject to rectification upon discovery of the female, as that sex may provide characters that will throw a new light upon the relationships.

#### WATERHOUSEIA, n. gen.

Generic characters.—Distinguishable from any acalyprate genus by the remarkable structure of the head (Fig. 4), the eyes covering almost the entire sides, and the frons in front of the ocelli reduced to not more than one-sixth of the head-width, widening gradually to anterior margin. The bristles consist of three pairs of orbitals, the ocellar pair, four verticals, the inner pair much longer than the outer, and a divergent pair of postverticals. The vibrissae are well developed, the eyes are extremely short haired, the proboscis is short and fleshy, and though the palpi do not show in the type specimen they are no doubt present. The arista is subnude. Thorax highly arched, with the following bristles: 1 humeral, 2 notopleurals, 1 presutural, 1 supra-alar, 2 postalar, 2 or 3 pairs of dorsocentrals, 4 scutellars, and 2 sternopleurals. Postscutellum well developed.

Legs normal. Wing as Figure 3. Abdomen elongate, slender, cylindrical, the hypopygium small.

Genotype, the following species.

WATERHOUSEIA CYCLOPS, n. sp. Figs. 3, 4.

Male.—A shiny black species, with the mesonotum dull black, the venter of abdomen and the tibiae and tarsi brownish-yellow, wings slightly smoky, veins black, halteres with yellow stalks and black knobs.

Head as wide as thorax, occiput excavated in centre above, face almost flat; genae linear, parafacials invisible in profile (Fig. 4); frons very narrow (Fig. 4a). Mesonotum much elevated, with many decumbent stiff black hairs. Scutellum bare except for the 4 marginal bristles. Legs shrunken in type, the fore femora apparently with series of well developed bristles on the anterodorsal and posteroventral surfaces, the hind femur with an outstanding bristle on anterior surface beyond middle, mid legs broken off; preapical tibial bristle lacking. Wings as Figure 3. Length, 3 mm.

Type, Blue Mts., N.S.W., 15.4.1922 (Ferguson). In Health Dept. collection.

The genus is dedicated to Dr. G. A. Waterhouse in recognition of his assistance in presenting several of this series of papers to the Society.

*Corrigendum.*

In "Notes on and Descriptions of New Species of Australian Diptera", by John R. Malloch, *Australian Zoologist*, viii, pt. ii, 1935, p. 87, the reference to *Ichthyomyia* de Meijere, *Tijdschr. v. Ent.*, lviii, 1913, 382, should read *Ichthyomyia* de Meijere, *Nova Guinea*, ix, Zoolog., Livr., iii, 1913, 382.

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